

**IN THE CLAIMS:**

**Please amend the claims as follows:**

Claims 1-7 (cancelled).

Claims 8-18 (previously canceled).

Claims 19-24 (cancelled).

25 (previously presented). A thermo-optic switch comprising:

- a first substrate having a first waveguide;
- a heating element in proximity to the first waveguide; and
- a package substrate solder bonded to the first substrate via the heating element.

26 (previously presented). The thermo-optic switch of claim 25, wherein the package substrate has multilayer electrical interconnections therein.

27 (previously presented). The thermo-optic switch of claim 26, wherein the heating element is electrically coupled through the package substrate to

electrical bonding surfaces on an exposed surface of the thermo-optic switch.

28 (previously presented). The thermo-optic switch of claim 27, further comprising an electrical controller integrated onto the package substrate.

29 (new). A 2x2 thermo-optic switch, comprising:

a first substrate having a first waveguide and a substantially parallel second waveguide separated by a distance;

a first heating element in proximity to the first waveguide;

a second heating element in proximity to the second waveguide; and

a package substrate comprising:

a first conductive strip solder bonded to said first heating element;

a second conductive strip solder bonded to said second heating element; and

a third common conductive strip spanning said distance and solder bonded to both said first heating element and said second heating element.

30 (new). The 2x2 thermo-optic switch as recited in claim 29 further comprising:

a controller to control electric signals to said first conductive strip and said second conductive strip.